

10/566,620

## 1-22. (CANCELED)

23. (CURRENTLY AMENDED) A method of operating an automatic transmission of a motor vehicle having a clutch located between the drive engine and the transmission, the method comprising the steps of:

(a) carrying out a first downshifting operation during a coasting mode without any engine braking of the vehicle; and one of:

(b1) terminating the first downshifting operation by engagement of [[a]] the clutch, located between the [[a]] vehicle drive motor and the transmission, if a speed of the vehicle is above a predetermined threshold speed; and~~[[.,]]~~

(([[c]])b2) terminating the first downshifting operation without engagement of the clutch, located between the vehicle drive motor and the transmission, if [[a]] the speed of the vehicle [[falls]] is below [[a]] the predetermined threshold speed, (c1) carrying out a second downshifting operation by downshifting at least two gears without re-engaging the clutch; and

(c2) terminating the second downshifting operation by engaging the clutch located between the vehicle drive motor and the transmission.

24. (CURRENTLY AMENDED) The method according to claim 23, further comprising the step of carrying out [[the]] a second downshifting operation, while the clutch remains only during a continually disengaged clutch, if a reasonably great probability exists that a driver has a desire for positive drive torque as well as desiring uninterrupted travel.

25. (PREVIOUSLY PRESENTED) The method according to claim 24, further comprising the step of determining the desire for positive drive torque by an indicator.

10/566,620

26. (CURRENTLY AMENDED) The method according to claim 24, further comprising the step of indicating the desire for positive drive torque by one or more of:

releasing operative brakes of the vehicle,

deflecting an activation lever for a direction of travel, and

using a steering angle of a vehicle steering mechanism.

27. (CURRENTLY AMENDED) The method according to claim [[26]] 24, further comprising the steps of indicating the desire for positive drive torque by using a steering angle of a vehicle steering mechanism and determining a driver's desire for positive drive torque by way of overstepping of the steering angle as compared to a predetermined steering angle.

28. (CURRENTLY AMENDED) The method according to claim [[23]] 24, further comprising the step of using, for a determination of the probability of the driver's wish for a positive torque, two or more of named indicators or other indicators in common.

29. (CURRENTLY AMENDED) The method according to claim 23, further comprising the step of preventing the second downshifting operation if operational brakes of the vehicle are activated.

30. (CURRENTLY AMENDED) The method according to claim 23, further comprising the step of engaging the clutch, to terminate the second downshifting operation, only when a power control member of the motor vehicle is activated.

31. (CURRENTLY AMENDED) The method according to claim 23, further comprising the step of always terminating engagement of a starting gear of the automatic transmission at the end of the second downshifting operation with a disengaged clutch.

10/566,620

32. (PREVIOUSLY PRESENTED) The method according to claim 23, further comprising the step of selecting gear jumps during the downshifting dependent on vehicle deceleration.

33. (CANCELED)

34. (CURRENTLY AMENDED) A method of operating an automatic transmission of a motor vehicle, the method comprising the steps of:

(a) carrying out a first downshifting operation from a higher gear to a lower gear during a coasting mode of the automatic transmission, without any engine braking of the vehicle, from a higher gear to a lower gear by:

disengaging a clutch located between the automatic transmission and a vehicle engine;

shifting from the higher gear to the lower gear in the automatic transmission; and

one of:

(b1) terminating the first downshifting operation by engaging the clutch, located between the automatic transmission and the vehicle engine, if a speed of the vehicle is above a predetermined threshold speed so that engine compression influences the vehicle;

and

(b2[[c]]) terminating the first downshifting operation without engagement of the clutch, located between the vehicle drive motor and the transmission, if the speed of the vehicle [[falls]] is below [[a]] the predetermined threshold speed;

(c) if the vehicle speed continues to decrease, carrying out a second downshifting operation of the automatic transmission by disengaging the clutch, located between the automatic transmission and the vehicle engine, by [[;]]

10/566,620

downshifting from the lower gear to a first next lower gear in the automatic transmission and subsequently downshifting from the first next lower gear to a second next lower gear while maintaining the clutch, located between the automatic transmission and the vehicle engine, disengaged during the second downshifting operation; (d1) terminating the second downshifting operation by engaging the clutch, located between the automatic transmission and the vehicle engine, if a speed of the vehicle is above a predetermined threshold speed so that engine compression influences the vehicle; and

(d2) terminating the second downshifting operation without engagement of the clutch, located between the vehicle drive motor and the transmission, if the speed of the vehicle is below the predetermined threshold speed;

determining a driver desire for positive drive torque; and

terminating the second downshifting operation by engaging the clutch.

35. (CURRENTLY AMENDED) The method according to claim 34, further comprising the step of determining the driver desire for positive drive torque by identifying at least one of:

releasing operative brakes of the vehicle,  
deflecting an activation lever for a direction of travel; and  
a predetermined steering angle of a vehicle steering mechanism; and  
activation of a power control member.

36. (CURRENTLY AMENDED) A method of operating an automatic transmission of a motor vehicle, the method comprising the steps of:

(a) entering a vehicle coasting mode, without any engine braking, by disengaging a clutch located between a vehicle drive motor and a transmission; and

10/566,620

performing a first downshift downshifting from a higher gear to a ←  
next lower gear of the automatic transmission;

and one of:

(b1) re-engaging the clutch, located between the vehicle drive motor ←  
and the transmission, with the next lower gear to terminate the first downshift if a ←  
speed of the vehicle is above a predetermined threshold speed; and ←

(b2) maintaining the clutch, located between the vehicle drive motor ←  
and the transmission, disengaged with the next lower gear to terminate the first ←  
downshift if a speed of the vehicle is below the predetermined threshold speed; and ←

providing motor braking of the vehicle, via the next lower gear of ←  
the automatic transmission, until the vehicle attains a minimum threshold speed for ←  
the vehicle; ←

and ←

(c) in the event that [[a]] the speed of the vehicle continues to ←  
decelerate falls below the threshold speed for the vehicle, then: ←

disengaging the clutch, if the clutch is engaged; ←

performing a second downshift downshifting from the ←  
next lower gear to a second next lower gear without re-engaging the clutch and, in ←  
the event that the speed of the vehicle falls further below the threshold speed; ←

downshifting from the second next lower gear to a third ←  
next lower gear while the clutch still remains disengaged; and ←

eventually re-engaging the clutch to terminate the ←  
downshift. ←

(d1) re-engaging the clutch, located between the vehicle drive motor ←  
and the transmission, with the second next lower gear to terminate the second ←  
downshift if a speed of the vehicle is above a predetermined threshold speed; and ←

10/566,620

(d2) maintaining the clutch, located between the vehicle drive motor and the transmission, disengaged with the second next lower gear to terminate the second downshift if a speed of the vehicle is below the predetermined threshold speed.

←  
←  
←  
←